

SEQUENCE LISTING

(1) GENERAL INFORMATION:

- (i) APPLICANT: KAWAKAMI, YUTAKA; ROSENBERG, STEVEN A.
- (ii) TITLE OF INVENTION: MELANOMA ANTIGENS AND THEIR USE IN DIAGNOSTIC AND THERAPEUTIC METHODS
- (iii) NUMBER OF SEQUENCES: 126
- (iv) CORRESPONDENCE ADDRESS:
  - (A) ADDRESSEE: MORGAN & FINNEGAN, L.L.P.
  - (B) STREET: 345 PARK AVENUE
  - (C) CITY: NEW YORK
  - (D) STATE: NEW YORK
  - (E) COUNTRY: USA
  - (F) ZIP: 10154
- (v) COMPUTER READABLE FORM:
  - (A) MEDIUM TYPE: FLOPPY DISK
  - (B) COMPUTER: IBM PC COMPATIBLE
  - (C) OPERATING SYSTEM: PC-DOS/MS-DOS
  - (D) SOFTWARE: ASCII
- (vi) CURRENT APPLICATION DATA:
  - (A) APPLICATION NUMBER: US/08/417,174
  - (B) FILING DATE: 05-APR-1995
- (vii) PRIOR APPLICATION DATA:
  - (A) APPLICATION NUMBER: US/08/231,565
  - (B) FILING DATE: 22-APR-1994
  - (C) CLASSIFICATION:
- (viii) ATTORNEY/AGENT INFORMATION:
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  - (C) REFERENCE/DOCKET NUMBER: 2026-4124US1
- (ix) TELECOMMUNICATION INFORMATION:
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(2) INFORMATION FOR SEQ ID NO: 1:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 1559
  - (B) TYPE: NUCLEOTIDE
  - (C) STRANDEDNESS: DOUBLE
  - (D) TOPOLOGY: UNKNOWN

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

AGCAGACAGA	GGACTCTCAT	TAAGGAAGGT	GTCCTGTGCC	40
CTGACCCTAC	AAGATGCCAA	GAGAAGATGC	TCACTTCATC	80
TATGGTTACC	CCAAGAAGGG	GCACGGCCAC	TCTTACACCA	120
CGGCTGAAGA	GGCCGCTGGG	ATCGGCATCC	TGACAGTGAT	160
CCTGGGAGTC	TTACTGCTCA	TCGGCTGTTG	GTATTGTAGA	200
AGACGAAATG	GATACAGAGC	CTTGATGGAT	AAAAGTCTTC	240
ATGTTGGCAC	TCAATGTGCC	TTAACAAGAA	GATGCCCACA	280
AGAAGGGTTT	GATCATCGGG	ACAGCAAAGT	GTCTCTTCAA	320
GAGAAAAACT	GTGAACCTGT	GGTTCCCAAT	GCTCCACCTG	360
CTTATGAGAA	ACTCTCTGCA	GAACAGTCAC	CACCACCTTA	400
TTCACCTTAA	GAGCCAGCGA	GACACCTGAG	ACATGCTGAA	440
ATTATTTCTC	TCACACTTTT	GCTTGAATTT	AATACAGACA	480
TCTAATGTTT	TCCTTTGGAA	TGGTGTAGGA	AAAATGCAAG	520
CCATCTCTAA	TAATAAGTCA	GTGTTAAAAT	TTAGTAGGT	560
CCGCTAGCAG	TACTAATCAT	GTGAGGAAAT	GATGAGAAAT	600
ATTAAATTGG	GAAAACCTCA	TCAATAAATG	TTGCAATGCA	640
TGATACTATC	TGTGCCAGAG	GTAATGTTAG	TAAATCCATG	680
GTGTTATTTT	CTGAGAGACA	GAATTCAAGT	GGGTATTCTG	720
GGGCCATCCA	ATTTCTCTTT	ACTTGAAATT	TGGCTAATAA	760
CAAAC TAGTC	AGGTTTTCGA	ACCTTGACCG	ACATGAACTG	800
TACACAGAAT	TGTTCCAGTA	CTATGGAGTG	CTCACAAAGG	840
ATACTTTTAC	AGGTTAAGAC	AAAGGGTTGA	CTGGCCTATT	880
TATCTGATCA	AGAACATGTC	AGCAATGTCT	CTTTGTGCTC	920
TAAAATTCTA	TTATACTACA	ATAATATATT	GTAAAGATCC	960
TATAGCTCTT	TTTTTTTGAG	ATGGAGTTTC	GCTTTTGTTG	1000

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CCCAGGCTGG AGTGCAATGG CGCGATCTTG GCTCACCATA      1040
ACCTCCGCCT CCCAGGTTCA AGCAATTCTC CTGCCTTAGC      1080
CTCCTGAGTA GCTGGGATTA CAGGCGTGCG CCACTATGCC      1120
TGACTAATTT TGTAGTTTTA GTAGAGACGG GGTTCCTCCA      1160
TGTTGGTCAG GCTGGTCTCA AACTCCTGAC CTCAGGTGAT      1200
CTGCCCCGCT CAGCCTCCCA AAGTGCTGGA ATTACAGGCG      1240
TGAGCCACCA CGCCTGGCTG GATCCTATAT CTTAGGTAAG      1280
ACATATAACG CAGTCTAATT ACATTTCACT TCAAGGCTCA      1320
ATGCTATTCT AACTAATGAC AAGTATTTTC TACTAAACCA      1360
GAAATTGGTA GAAGGATTTA AATAAGTAAA AGCTACTATG      1400
TACTGCCTTA GTGCTGATGC CTGTGTACTG CCTTAAATGT      1440
ACCTATGGCA ATTTAGCTCT CTTGGGTTCC CAAATCCCTC      1480
TCACAAGAAT GTGCAGAAGA AATCATAAAG GATCAGAGAT      1520
TCTGAAAAAA AAAAAAAAAA AAAAAAAAAA AAAAAAAAAA      1559

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(2) INFORMATION FOR SEQ ID NO: 2:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 118
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

```

Met  Pro  Arg  Glu  Asp  Ala  His  Phe  Ile  Tyr  Gly  Tyr  Pro  Lys
 1          5          10
Lys  Gly  His  Gly  His  Ser  Tyr  Thr  Thr  Ala  Glu  Glu  Ala  Ala
15          20          25
Gly  Ile  Gly  Ile  Leu  Thr  Val  Ile  Leu  Gly  Val  Leu  Leu  Leu
30          35          40
Ile  Gly  Cys  Trp  Tyr  Cys  Arg  Arg  Arg  Asn  Gly  Tyr  Arg  Ala
45          50          55
Leu  Met  Asp  Lys  Ser  Leu  His  Val  Gly  Thr  Gln  Cys  Ala  Leu
60          65          70
Thr  Arg  Arg  Cys  Pro  Gln  Glu  Gly  Phe  Asp  His  Arg  Asp  Ser
75          80

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Lys Val Ser Leu Gln Glu Lys Asn Cys Glu Pro Val Val Pro  
85 90 95  
Asn Ala Pro Pro Ala Tyr Glu Lys Leu Ser Ala Glu Gln Ser  
100 105 110  
Pro Pro Pro Tyr Ser Pro  
115

(2) INFORMATION FOR SEQ ID NO: 3:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

Thr Thr Ala Glu Glu Ala Ala Gly Ile  
1 5

(2) INFORMATION FOR SEQ ID NO: 4:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

Ala Ala Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 5:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

Gly Ile Gly Ile Leu Thr Val Ile Leu  
1 5

(2) INFORMATION FOR SEQ ID NO: 6:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

Gly Ile Leu Thr Val Ile Leu Gly Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 7:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

Ile Leu Thr Val Ile Leu Gly Val Leu  
1 5

(2) INFORMATION FOR SEQ ID NO: 8:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

Leu Thr Val Ile Leu Gly Val Leu Leu  
1 5

(2) INFORMATION FOR SEQ ID NO: 9:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

Thr Val Ile Leu Gly Val Leu Leu Leu  
1 5

(2) INFORMATION FOR SEQ ID NO: 10:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:

Val Ile Leu Gly Val Leu Leu Leu Ile  
1 5

(2) INFORMATION FOR SEQ ID NO: 11:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

Ala Leu Met Asp Lys Ser Leu His Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 12:

- (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

Ser Leu His Val Gly Thr Gln Cys Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 13:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

Pro Val Val Pro Asn Ala Pro Pro Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 14:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:

Asn Ala Pro Pro Ala Tyr Glu Lys Leu  
1 5

(2) INFORMATION FOR SEQ ID NO: 15:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:

Tyr Thr Thr Ala Glu Glu Ala Ala Gly Ile  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 16:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:

Thr Ala Glu Glu Ala Ala Gly Ile Gly Ile  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 17:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:

Glu Ala Ala Gly Ile Gly Ile Leu Thr Val  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 18:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:



Ala Ala Gly Ile Gly Ile Leu Thr Val Ile  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 19:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:

Gly Ile Leu Thr Val Ile Leu Gly Val Leu  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 20:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 20:

Ile Leu Thr Val Ile Leu Gly Val Leu Leu  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 21:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 21:

Leu Thr Val Ile Leu Gly Val Leu Leu Leu  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 22:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:

Thr Val Ile Leu Gly Val Leu Leu Ile  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 23:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 23:

Arg Ala Leu Met Asp Lys Ser Leu His Val  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 24:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:

Ser Leu His Val Gly Thr Gln Cys Ala Leu  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 25:

- (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 10  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 25:

Ser Leu Gln Glu Lys Asn Cys Glu Pro Val  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 26:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 2172  
(B) TYPE: nucleotide  
(C) STRANDEDNESS: Double  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 26:

GTCGACGGCC ATTACCAATC GCGACCGGGA AGAACACAAT 40  
GGATCTGGTG CTAAAAAGAT GCCTTCTTCA TTTGGCTGTG 80  
ATAGGTGCTT TGCTGGCTGT GGGGGCTACA AAAGTACCCA 120  
GAAACCAGGA CTGGCTTGGT GTCTCAAGGC AACTCAGAAC 160  
CAAAGCCTGG AACAGGCAGC TGTATCCAGA GTGGACAGAA 200  
GCCCAGAGAC TTGACTGCTG GAGAGGTGGT CAAGTGTCCC 240  
TCAAGGTCAG TAATGATGGG CCTACACTGA TTGGTGCAAA 280  
TGCCTCCTTC TCTATTGCCT TGAACTTCCC TGGAAGCCAA 320  
AAGGTATTGC CAGATGGGCA GGTTATCTGG GTCAACAATA 360  
CCATCATCAA TGGGAGCCAG GTGTGGGGAG GACAGCCAGT 400  
GTATCCCCAG GAAACTGACG ATGCCTGCAT CTTCCCTGAT 440  
GGTGGACCTT GCCCATCTGG CTCTTGGTCT CAGAAGAGAA 480  
GCTTTGTTTA TGTCTGGAAG ACCTGGGGCC AATACTGGCA 520  
ATTTCTAGGG GGCCCAGTGT CTGGGCTGAG CATTGGGACA 560

GGCAGGGCAA TGCTGGGCAC ACACACCATG GAAGTGA CTG	600
TCTACCATCG CCGGGGATCC CGGAGCTATG TGCCTCTTGC	640
TCATTCCAGC TCAGCCTTCA CCATTACTGA CCAGGTGCCT	680
TTCTCCGTGA GCGTGTCCCA GTTGCGGGCC TTGGATGGAG	720
GGAACAAGCA CTTCTGAGA AATCAGCCTC TGACCTTTGC	760
CCTCCAGCTC CATGACCCCA GTGGCTATCT GGCTGAAGCT	800
GACCTCTCCT ACACCTGGGA CTTTGGAGAC AGTAGTGGAA	840
CCCTGATCTC TCGGGCACTT GTGGTCACTC ATACTTACCT	880
GGAGCCTGGC CCAGTCACTG CCCAGGTGGT CCTGCAGGCT	920
GCCATTCTCTC TCACCTCCTG TGGCTCCTCC CCAGTTCCAG	960
GCACCACAGA TGGGCACAGG CCAACTGCAG AGGCCCTTAA	1000
CACCACAGCT GGCCAAGTGC CTACTACAGA AGTTGTGGGT	1040
ACTACACCTG GTCAGGCGCC AACTGCAGAG CCCTCTGGAA	1080
CCACATCTGT GCAGGTGCCA ACCACTGAAG TCATAAGCAC	1120
TGCACCTGTG CAGATGCCAA CTGCAGAGAG CACAGGTATG	1160
ACACCTGAGA AGGTGCCAGT TTCAGAGGTC ATGGGTACCA	1200
CACTGGCAGA GATGTCAACT CCAGAGGCTA CAGGTATGAC	1240
ACCTGCAGAG GTATCAATTG TGGTGCTTTC TGGAACCACA	1280
GCTGCACAGG TAACA ACTAC AGAGTGGGTG GAGACCACAG	1320
CTAGAGAGCT ACCTATCCCT GAGCCTGAAG GTCCAGATGC	1360
CAGCTCAATC ATGTCTACGG AAAGTATTAC AGGTCCCTG	1400
GGCCCCCTGC TGGATGGTAC AGCCACCTTA AGGCTGGTGA	1440
AGAGACAAGT CCCCCTGGAT TGTGTTCTGT ATCGATATGG	1480
TTCCTTTTCC GTCACCCTGG ACATTGTCCA GGGTATTGAA	1520
AGTGCCGAGA TCCTGCAGGC TGTGCCGTCC GGTGAGGGGG	1560
ATGCATTTGA GCTGACTGTG TCCTGCCAAG GCGGGCTGCC	1600
CAAGGAAGCC TGCATGGAGA TCTCATCGCC AGGGTGCCAG	1640

CCCCCTGCCC AGCGGCTGTG CCAGCCTGTG CTACCCAGCC	1680
CAGCCTGCCA GCTGGTTCTG CACCAGATAC TGAAGGGTGG	1720
CTCGGGGACA TACTGCCTCA ATGTGTCTCT GGCTGATACC	1760
AACAGCCTGG CAGTGGTCAG CACCCAGCTT ATCATGCCTG	1800
GTCAAGAAGC AGGCCTTGGG CAGGTTCCGC TGATCGTGGG	1840
CATCTTGCTG GTGTTGATGG CTGTGGTCCT TGCATCTCTG	1880
ATATATAGGC GCAGACTTAT GAAGCAAGAC TTCTCCGTAC	1920
CCCAGTTGCC ACATAGCAGC AGTCACTGGC TCGTCTACC	1960
CCGCATCTTC TGCTCTTGTC CCATTGGTGA GAACAGCCCC	2000
CTCCTCAGTG GGCAGCAGGT CTGAGTACTC TCATATGATG	2040
CTGTGATTTT CCTGGAGTTG ACAGAAACAC CTATATTTCC	2080
CCCAGTCTTC CCTGGGAGAC TACTATTAAC TGAAATAAAT	2120
ACTCAGAGCC TGAAAAAAAA TAAAAAAAAA AAAAAAAAAA	2160
AAAAAAAAAA AA	2172

(2) INFORMATION FOR SEQ ID NO: 27:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 661
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 27:

Met	Asp	Leu	Val	Leu	Lys	Arg	Cys	Leu	Leu	His	Leu
1				5					10		
Ala	Val	Ile	Gly	Ala	Leu	Leu	Ala	Val	Gly	Ala	Thr
		15				20					
Lys	Val	Pro	Arg	Asn	Gln	Asp	Trp	Leu	Gly	Val	Ser
25				30					35		
Arg	Gln	Leu	Arg	Thr	Lys	Ala	Trp	Asn	Arg	Gln	Leu
		40					45				
Tyr	Pro	Glu	Trp	Thr	Glu	Ala	Gln	Arg	Leu	Asp	Cys
	50				55					60	
Trp	Arg	Gly	Gly	Gln	Val	Ser	Leu	Lys	Val	Ser	Asn
			65					70			

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Ala	Thr	Gly	Met	Thr	Pro	Ala	Glu	Val	Ser	Ile	Val	
			395					400				
Val	Leu	Ser	Gly	Thr	Thr	Ala	Ala	Gln	Val	Thr	Thr	
	405					410					415	
Thr	Glu	Trp	Val	Glu	Thr	Thr	Ala	Arg	Glu	Leu	Pro	
				420					425			
Ile	Pro	Glu	Pro	Glu	Gly	Pro	Asp	Ala	Ser	Ser	Ile	
		430					435					
Met	Ser	Thr	Glu	Ser	Ile	Thr	Gly	Ser	Leu	Gly	Pro	
440					445					450		
Leu	Leu	Asp	Gly	Thr	Ala	Thr	Leu	Arg	Leu	Val	Lys	
			455					460				
Arg	Gln	Val	Pro	Leu	Asp	Cys	Val	Leu	Tyr	Arg	Tyr	
	465					470					475	
Gly	Ser	Phe	Ser	Val	Thr	Leu	Asp	Ile	Val	Gln	Gly	
				480					490			
Ile	Glu	Ser	Ala	Glu	Ile	Leu	Gln	Ala	Val	Pro	Ser	
		495					500					
Gly	Glu	Gly	Asp	Ala	Phe	Glu	Leu	Thr	Val	Ser	Cys	
505					510					515		
Gln	Gly	Gly	Leu	Pro	Lys	Glu	Ala	Cys	Met	Glu	Ile	
			520					525				
Ser	Ser	Pro	Gly	Cys	Gln	Pro	Pro	Ala	Gln	Arg	Leu	
	530					535					540	
Cys	Gln	Pro	Val	Leu	Pro	Ser	Pro	Ala	Cys	Gln	Leu	
				545					550			
Val	Leu	His	Gln	Ile	Leu	Lys	Gly	Gly	Ser	Gly	Thr	
		555					560					
Tyr	Cys	Leu	Asn	Val	Ser	Leu	Ala	Asp	Thr	Asn	Ser	
565					570					575		
Leu	Ala	Val	Val	Ser	Thr	Gln	Leu	Ile	Met	Pro	Gly	
			580					585				
Gln	Glu	Ala	Gly	Leu	Gly	Gln	Val	Pro	Leu	Ile	Val	
	590					595					600	
Gly	Ile	Leu	Leu	Val	Leu	Met	Ala	Val	Val	Leu	Ala	
				605					610			
Ser	Leu	Ile	Tyr	Arg	Arg	Arg	Leu	Met	Lys	Gln	Asp	
		615					620					
Phe	Ser	Val	Pro	Gln	Leu	Pro	His	Ser	Ser	Ser	His	
625					630					635		
Trp	Leu	Arg	Leu	Pro	Arg	Ile	Phe	Cys	Ser	Cys	Pro	
			640					645				
Ile	Gly	Glu	Asn	Ser	Pro	Leu	Leu	Ser	Gly	Gln	Gln	
	650					655					660	
Val												

(2) INFORMATION FOR SEQ ID NO: 28:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 28:

Val Pro Gly Ile Leu Leu Thr  
1 5

(2) INFORMATION FOR SEQ ID NO: 29:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 7  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 29:

Leu Leu Ser Gly Gln Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 30:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 12  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 30:

Pro Pro Gln Trp Ala Ala Gly Leu Ser Thr Leu Ile  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 31:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 31:



Met Leu Leu Ala Val Leu Tyr Cys Leu  
1 5

(2) INFORMATION FOR SEQ ID NO: 32:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 32:

Tyr Met Asn Gly Thr Met Ser Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 33:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 33:

Leu Leu Asp Gly Thr Ala Thr Leu Arg Leu  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 34:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 34:

Val Leu Tyr Arg Tyr Gly Ser Phe Ser Val  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 35:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 35:

Ala Leu Asp Gly Gly Asn Lys His Phe Leu  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 36:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 36:

Val Leu Lys Arg Cys Leu Leu His Leu  
1 5

(2) INFORMATION FOR SEQ ID NO: 37:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 37:

Val Leu Pro Ser Pro Ala Cys Gln Leu Val  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 38:

- (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 10
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 38:

Ser Leu Ala Asp Thr Asn Ser Leu Ala Val  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 39:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 39:

Ser Val Ser Val Ser Gln Leu Arg Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 40:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 40:

Tyr Leu Glu Pro Gly Pro Val Thr Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 41:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown

- (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 41:

Leu Asn Val Ser Leu Ala Asp Thr Asn  
1 5

(2) INFORMATION FOR SEQ ID NO: 42:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 58
  - (B) TYPE: NUCLEOTIDE
  - (C) STRANDEDNESS: DOUBLE
  - (D) TOPOLOGY: UNKNOWN
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 42:

GGACAGGCCG AGGCGGCCTT TTTTTTTTTT TTTTTTTTTT 40  
TTTTTTTTTT TTTTTTTT 58

(2) INFORMATION FOR SEQ ID NO: 43:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 12
  - (B) TYPE: NUCLEOTIDE
  - (C) STRANDEDNESS: DOUBLE
  - (D) TOPOLOGY: UNKNOWN
- (ii) MOLECULE TYPE: cDNA
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 43:

CCAATCGCGA CC 12

(2) INFORMATION FOR SEQ ID NO: 44:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 15
  - (B) TYPE: NUCLEOTIDE
  - (C) STRANDEDNESS: DOUBLE
  - (D) TOPOLOGY: UNKNOWN
- (ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 44:

GGTCGCGATT GGTA

15

(2) INFORMATION FOR SEQ ID NO: 45:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 45:

Gly Ile Leu Gly Phe Val Phe Thr Leu  
1 5

(2) INFORMATION FOR SEQ ID NO: 46:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 46:

Lys Thr Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 47:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 47:

Lys Thr Trp Gly Gln Tyr Trp Gln Val Leu  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 48:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 48:

Ile Thr Asp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 49:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 49:

Thr Ile Thr Asp Gln Val Pro Phe Ser Val  
1 5 10

(2) INFORMATION FOR SEQ ID NO: 50:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 50:

Ala Leu Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 51:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 51:

Ala Met Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 52:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 52:

Ala Ile Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 53:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 53:

Trp Ala Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 54:

- (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 54:

Phe Ala Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 55:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 55:

Tyr Ala Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 56:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 56:

Ala Ala Trp Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 57:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown



(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 57:

Ala Ala Phe Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 58:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 58:

Ala Ala Tyr Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 59:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 59:

Lys Leu Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 60:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 60:

Lys Met Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 61:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 61:

Lys Ile Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 62:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 62:

Trp Leu Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 63:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 63:

Phe Leu Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 64:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 64:

Tyr Leu Gly Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 65:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 65:

Ala Leu Trp Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 66:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 66:

Ala Leu Phe Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 67:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 67:

Ala Leu Tyr Ile Gly Ile Leu Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 68:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 68:

Lys Leu Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 69:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 69:

Lys Met Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 70:

- (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 70:

Lys Ile Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 71:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 71:

Trp Thr Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 72:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 72:

Phe Thr Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 73:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown

- (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 73:

Tyr Thr Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 74:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 74:

Ala Thr Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 75:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 75:

Leu Thr Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 76:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 76:

Lys Thr Tyr Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 77:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 77:

Lys Thr Phe Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 78:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 78:

Ala Leu Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 79:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 79:

Leu Leu Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 80:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 80:

Trp Leu Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 81:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 81:

Phe Leu Trp Gly Gln Tyr Trp Gln Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 82:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 82:

Tyr Leu Trp Gly Gln Tyr Trp Gln Val  
1 5



(2) INFORMATION FOR SEQ ID NO: 83:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 83:

Ile Leu Asp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 84:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 84:

Ile Met Asp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 85:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 85:

Ile Ile Asp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 86:

- (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 86:

Phe Thr Asp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 87:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 87:

Trp Thr Asp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 88:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 88:

Tyr Thr Asp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 89:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown

- (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 89:

Ile Thr Trp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 90:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 90:

Ile Thr Phe Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 91:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 91:

Ile Thr Tyr Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 92:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 92:

Ile Thr Ala Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 93:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 93:

Ile Thr Met Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 94:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 94:

Ile Thr Ser Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 95:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 95:

Ile Leu Trp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 96:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 96:

Ile Leu Phe Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 97:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 97:

Ile Leu Tyr Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 98:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 98:

Ile Leu Ala Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 99:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 99:

Ile Leu Met Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 100:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 100:

Ile Leu Ser Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 101:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 101:

Trp Leu Asp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 102:

- (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 102:

Phe Leu Asp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 103:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 103:

Tyr Leu Asp Gln Val Pro Phe Ser Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 104:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 104:

Tyr Leu Glu Pro Gly Pro Val Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 105:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown

- (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 105:

Tyr Leu Glu Pro Gly Pro Val Thr Leu  
1 5

(2) INFORMATION FOR SEQ ID NO: 106:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 106:

Tyr Leu Glu Pro Gly Pro Val Thr Ile  
1 5

(2) INFORMATION FOR SEQ ID NO: 107:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 107:

Phe Leu Glu Pro Gly Pro Val Thr Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 108:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: Peptide



(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 108:

Trp Leu Glu Pro Gly Pro Val Thr Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 109:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 109:

Tyr Leu Tyr Pro Gly Pro Val Thr Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 110:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 110:

Tyr Leu Trp Pro Gly Pro Val Thr Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 111:

(i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 111:

Tyr Leu Phe Pro Gly Pro Val Thr Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 112:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 112:

Tyr Leu Met Pro Gly Pro Val Thr Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 113:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 113:

Tyr Leu Ser Pro Gly Pro Val Thr Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 114:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 114:

Tyr Leu Ala Pro Gly Pro Val Thr Ala  
1 5

(2) INFORMATION FOR SEQ ID NO: 115:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 115:

Tyr Leu Met Pro Gly Pro Val Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 116:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 116:

Tyr Leu Ser Pro Gly Pro Val Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 117:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 117:

Tyr Leu Ala Pro Gly Pro Val Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 118:

- (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 118:

Tyr Leu Tyr Pro Gly Pro Val Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 119:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 119:

Tyr Leu Phe Pro Gly Pro Val Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 120:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 9
  - (B) TYPE: amino acid
  - (C) STRANDEDNESS: Unknown
  - (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 120:

Tyr Leu Trp Pro Gly Pro Val Thr Val  
1 5

(2) INFORMATION FOR SEQ ID NO: 121:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 661
- (B) TYPE: amino acid
- (C) STRANDEDNESS: Unknown
- (D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 121:

Met	Asp	Leu	Val	Leu	Lys	Arg	Cys	Leu	Leu	His	Leu
1				5					10		
Ala	Val	Ile	Gly	Ala	Leu	Leu	Ala	Val	Gly	Ala	Thr
	15						20				
Lys	Val	Pro	Arg	Asn	Gln	Asp	Trp	Leu	Gly	Val	Ser
25				30						35	
Arg	Gln	Leu	Arg	Thr	Lys	Ala	Trp	Asn	Arg	Gln	Leu
		40						45			
Tyr	Pro	Glu	Trp	Thr	Glu	Ala	Gln	Arg	Leu	Asp	Cys
	50				55						60
Trp	Arg	Gly	Gly	Gln	Val	Ser	Leu	Lys	Val	Ser	Asn
			65						70		
Asp	Gly	Pro	Thr	Leu	Ile	Gly	Ala	Asn	Ala	Ser	Phe
	75						80				
Ser	Ile	Ala	Leu	Asn	Phe	Pro	Gly	Ser	Gln	Lys	Val
85				90						95	
Leu	Pro	Asp	Gly	Gln	Val	Ile	Trp	Val	Asn	Asn	Thr
		100						105			
Ile	Ile	Asn	Gly	Ser	Gln	Val	Trp	Gly	Gly	Gln	Pro
	110				115						120
Val	Tyr	Pro	Gln	Glu	Thr	Asp	Asp	Ala	Cys	Ile	Phe
			125						130		
Pro	Asp	Gly	Gly	Pro	Cys	Pro	Ser	Gly	Ser	Trp	Ser
	135						140				
Gln	Lys	Arg	Ser	Phe	Val	Tyr	Val	Trp	Lys	Thr	Trp
145				150						155	
Gly	Gln	Tyr	Trp	Gln	Val	Leu	Gly	Gly	Pro	Val	Ser
		160						165			
Gly	Leu	Ser	Ile	Gly	Thr	Gly	Arg	Ala	Met	Leu	Gly
	170				175						180
Thr	His	Thr	Met	Glu	Val	Thr	Val	Tyr	His	Arg	Arg
			185						190		
Gly	Ser	Arg	Ser	Tyr	Val	Pro	Leu	Ala	His	Ser	Ser
	195					200					
Ser	Ala	Phe	Thr	Ile	Thr	Asp	Gln	Val	Pro	Phe	Ser
205				210						215	



Cys Gln Pro Val Leu Pro Ser Pro Ala Cys Gln Leu  
545 550  
Val Leu His Gln Ile Leu Lys Gly Gly Ser Gly Thr  
555 560  
Tyr Cys Leu Asn Val Ser Leu Ala Asp Thr Asn Ser  
565 570 575  
Leu Ala Val Val Ser Thr Gln Leu Ile Met Pro Gly  
580 585  
Gln Glu Ala Gly Leu Gly Gln Val Pro Leu Ile Val  
590 595 600  
Gly Ile Leu Leu Val Leu Met Ala Val Val Leu Ala  
605 610  
Ser Leu Ile Tyr Arg Arg Arg Leu Met Lys Gln Asp  
615 620  
Phe Ser Val Pro Gln Leu Pro His Ser Ser Ser His  
625 630 635  
Trp Leu Arg Leu Pro Arg Ile Phe Cys Ser Cys Pro  
640 645  
Ile Gly Glu Asn Ser Pro Leu Leu Ser Gly Gln Gln  
650 655 660  
Val

(2) INFORMATION FOR SEQ ID NO: 122:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 122:

Xaa Xaa Xaa Ile Gly Ile Leu Thr Xaa  
1 5

(2) INFORMATION FOR SEQ ID NO: 123:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 123:

Xaa Xaa Xaa Gly Gln Tyr Trp Gln Xaa  
1 5

(2) INFORMATION FOR SEQ ID NO: 124:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 124:

Xaa Xaa Xaa Gln Val Pro Phe Ser Xaa  
1 5

(2) INFORMATION FOR SEQ ID NO: 125:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 125:

Xaa Xaa Xaa Pro Gly Pro Val Thr Xaa  
1 5

(2) INFORMATION FOR SEQ ID NO: 126:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 10  
(B) TYPE: amino acid  
(C) STRANDEDNESS: Unknown  
(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: Peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 126:

Phe Leu Pro Ser Asp Tyr Phe Pro Ser Val  
1 5 10